

REMARKS

I. Examiner's Rejections

The Examiner has given the following rejections:

- 1) Claims 1-17 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Geissler et al.* (U.S. Pat. No. 5,679,735); and
- 2) Claims 18-20 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Cheng et al.* (U.S. Pat. No. 5,928,830) in view of *Kowalski et al.* (U.S. Pat. No. 4,468,498).

II. Claim Amendments

Applicants have cancelled claims 1-12 and 18-20. The rejections of those claims therefore no longer apply.

Applicants have also amended claim 13 by limiting the acrylic polymer in claim 13(b) to a copolymer which "consists essentially of 20% to 80% by weight of recurring units of t-butyl acrylate or methacrylate, 1% to 20% by weight of recurring units of acrylic or methacrylic acid, and up to 79% of recurring units of a C₁-C₁₀ alkyl acrylate or methacrylate having a Tg lower than 25°C." The amendment finds support in the specification. See, e.g., page 3, lines 14-30.

III. Nonobviousness of Remaining Claims 13-17

Amended claim 13 defines a latex coating. The latex coating comprises, *inter alia*, an acrylic polymer which consists essentially of recurring units of t-butyl acrylate or methacrylate, acrylic or methacrylic acid, and a C₁-C₁₀ alkyl acrylate or methacrylate having a Tg lower than 25°C.

Geissler et al. as a whole teaches a process for the preparation of aqueous synthetic resin dispersions which are stabilized by protective colloids. See the *Summary of the Invention of Geissler et al.* Although the reference

discloses the polymers which are made by the process, the polymers, *inter alia*, must have a "second monomer" such as a vinyl aromatic or vinyl ester. Note that unlike the reference polymer, the acrylic polymer in Applicants' claim 13(b) does not contain such a "second monomer."

Moreover, *Geissler et al.* as a whole does not fairly suggest using an acrylic polymer that contains t-butyl acrylate or methacrylate as an essential monomer in latex coatings. *Geissler et al.* discloses five "suitable copolymer compositions" in the Detailed Description: methyl methacrylate/butyl acrylate/methacrylic acid, methyl methacrylate/butyl acrylate/acetoacetoxyethyl methacrylate, methyl methacrylate/2-ethylhexyl acrylate/methacrylic acid, methyl methacrylate/butyl acrylate/lauryl methacrylate/methacrylic acid or styrene/butyl acrylate/acrylic acid. See Col. 3, lines 24-32 of *Geissler et al.* Note that all of these reference polymers must contain either methyl methacrylate or styrene. Unlike the reference polymers, the acrylic polymer used in the latex of claim 13 contains neither methyl methacrylate nor styrene.

Finally, substituting t-butyl methacrylate for methyl methacrylate in an acrylic polymer and formulating latex coatings thereof has showed an unexpected advantage: improved moisture and corrosion resistance. Applicants' Example 1 shows that the panels coated with a latex coating formulated from a t-butyl methacrylate/2-ethylhexyl acrylate/butyl acrylate/acrylic acid copolymer had virtually no corrosion and no gloss loss after 24 hours of continued humidity exposure. By comparison, Applicants' Comparative Example 2 shows that substituting methyl methacrylate for t-butyl methacrylate in Example 1, the coated panels are corroded and lost gloss after four hours of continued humidity exposure. Applicants believe that skilled persons in the art, reading *Geissler et al.*, would not have recognized such a significant advantage.

Therefore, *Geissler et al.* cannot render amended claim 13 obvious. Claims 14-17 are not obvious over *Geissler et al.* because they depend from

claim 13. See *MPEP* §2143.03; *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988).

Accordingly, Applicants respectfully ask the Examiner to withdraw the rejections and to allow claims 13-17. Applicants invite the Examiner to telephone their attorney, Shao-Hua Guo, at (610) 359-6059 if a discussion of the application might be helpful.

Respectfully submitted,
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